Claims

What is claimed is:

1. A method, comprising:
coupling an end of a first tubular member to an end of a tubular sleeve;
coupling an end of a second tubular member to another end of the tubular sleeve;
coupling the ends of the first and second tubular members; and
radially expanding and plastically deforming the first tubular member and the second tubular member.

2. The method of claim 1, wherein the tubular sleeve comprises an internal flange.

3. The method of claim 2, wherein coupling the end of the first tubular member to the end of the tubular sleeve comprises:
inserting the end of the first tubular member into the end of the tubular sleeve into abutment with the internal flange.

4. The method of claim 3, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:
inserting the end of the second tubular member into the other end of the tubular sleeve into abutment with the internal flange.

5. The method of claim 2, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:
inserting the end of the second tubular member into the other end of the tubular sleeve into abutment with the internal flange.

6. The method of claim 1, wherein the tubular sleeve comprises an external flange.

7. The method of claim 6, wherein coupling the end of the first tubular member to the end of the tubular sleeve comprises:
inserting the end of the tubular sleeve into the end of the first tubular member until the end of the first tubular member abuts the external flange.

8. The method of claim 7, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:
inserting the other end of the tubular sleeve into the end of the second tubular member until the end of the second tubular member abuts the external flange.

9. The method of claim 6, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:
inserting the other end of the tubular sleeve into the end of the second tubular member until the end of the second tubular member abuts the external flange.

10. The method of claim 1, wherein coupling the end of the first tubular member to the end of the tubular sleeve comprises:

inserting a retaining ring between the end of the first tubular member and the end of the tubular sleeve.

11. The method of claim 10, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

inserting another retaining ring between the end of the second tubular member and the other end of the tubular sleeve.

12. The method of claim 1, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

inserting a retaining ring between the end of the first tubular member and the other end of the tubular sleeve.

13. The method of claim 10, wherein the retaining ring is resilient.

14. The method of claim 11, wherein the retaining ring and the other retaining ring are resilient.

15. The method of claim 12, wherein the retaining ring is resilient.

16. The method of claim 1, wherein coupling the end of the first tubular member to the end of the tubular sleeve comprises:

deforming the end of the tubular sleeve.

17. The method of claim 16, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

deforming the other end of the tubular sleeve.

18. The method of claim 1, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

deforming the other end of the tubular sleeve.

19. The method of claim 1, wherein coupling the end of the first tubular member to the end of the tubular sleeve comprises:

coupling a retaining ring to the end of the first tubular member.

20. The method of claim 19, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

coupling another retaining ring to the end of the second tubular member.

21. The method of claim 1, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

coupling a retaining ring to the end of the second tubular member.

22. The method of claim 19, wherein the retaining ring is resilient.

23. The method of claim 20, wherein the retaining ring and the other retaining ring are resilient.

24. The method of claim 21, wherein the retaining ring is resilient.

25. The method of claim 1, wherein coupling the end of the first tubular member to the end of the tubular sleeve comprises:

heating the end of the tubular sleeve; and

inserting the end of the first tubular member into the end of the tubular sleeve.

26. The method of claim 25, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

heating the other end of the tubular sleeve; and

inserting the end of the second tubular member into the other end of the tubular sleeve.

27. The method of claim 1, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

heating the other end of the tubular sleeve; and

inserting the end of the second tubular member into the other end of the tubular sleeve.

28. The method of claim 1, wherein coupling the end of the first tubular member to the end of the tubular sleeve comprises:

inserting the end of the first tubular member into the end of the tubular sleeve; and

latching the end of the first tubular member to the end of the tubular sleeve.

29. The method of claim 28, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

inserting the end of the second tubular member into the end of the tubular sleeve; and

latching the end of the second tubular member to the other end of the tubular sleeve.

30. The method of claim 1, wherein coupling the end of the second tubular member to the other end of the tubular sleeve comprises:

inserting the end of the second tubular member into the end of the tubular sleeve; and

latching the end of the second tubular member to the other end of the tubular sleeve.

31. The method of claim 1, wherein the tubular sleeve further comprises one or more sealing members for sealing the interface between the tubular sleeve and at least one of the tubular members.

32. The method of claim 1, further comprising:

placing the tubular members in another structure; and

then radially expanding and plastically deforming the first tubular member and the second tubular member.

33. The method of claim 32, further comprising:

radially expanding the tubular sleeve into engagement with the structure.

34. The method of claim 32, further comprising:

sealing an annulus between the tubular sleeve and the other structure.

35. The method of claim 32, wherein the other structure comprises a wellbore.

36. The method of claim 32, wherein the other structure comprises a wellbore casing.

37. The method of claim 1, wherein the tubular sleeve further comprises a sealing element coupled to the exterior of the tubular sleeve.

38. The method of claim 1, wherein the tubular sleeve is metallic.

39. The method of claim 1, wherein the tubular sleeve is non-metallic.

40. The method of claim 1, wherein the tubular sleeve is plastic.

41. The method of claim 1, wherein the tubular sleeve is ceramic.

42. The method of claim 1, further comprising:

breaking the tubular sleeve.

43. The method of claim 1, wherein the tubular sleeve includes one or more longitudinal slots.

44. The method of claim 1, wherein the tubular sleeve includes one or more radial passages.

45. The method of claim 1, wherein radially expanding and plastically deforming the first tubular member, the second tubular member, and the tubular sleeve comprises:

displacing an expansion cone within and relative to the first and second tubular members.

46. The method of claim 1, wherein radially expanding and plastically deforming the first tubular member, the second tubular member, and the tubular sleeve comprises:

applying radial pressure to the interior surfaces of the first and second tubular member using a rotating member.

47. The method of claim 1, further comprising:

amorphously bonding the first and second tubular members during the radial expansion and plastic deformation of the first and second tubular members.

48. The method of claim 1, further comprising:

welding the first and second tubular members during the radial expansion and plastic deformation of the first and second tubular members.

49. The method of claim 1, further comprising:

providing a fluid tight seal within the threaded coupling between the first and second tubular members during the radial expansion and plastic deformation of the first and second tubular members.

50. The method of claim 1, further comprising:

placing the tubular sleeve in circumferential tension;

placing the end of the first tubular member in circumferential compression; and

placing the end of the second tubular member in circumferential compression.

51. The method of claim 1, further comprising:

placing the tubular sleeve in circumferential compression;

placing the end of the first tubular member in circumferential tension; and

placing the end of the second tubular member in circumferential tension.

52. The method of claim 1, wherein radially expanding and plastically deforming the first tubular

member and the second tubular member comprises:

radially expanding and plastically deforming only the portions of the first and second members proximate the tubular sleeve.

53. The method of claim 52, further comprising:

providing a fluid tight seal between the tubular sleeve and at least one of the first and second tubular members.

54. The method of claim 1, wherein the first tubular member comprises internal threads; and wherein the second tubular member comprises external threads that engage the internal threads of the first tubular member.

55. The method of claim 54, wherein radially expanding and plastically deforming the first tubular member and the second tubular member comprises:

radially expanding and plastically deforming only the portions of the first and second members proximate the threads of the first and second tubular members.

56. The method of claim 55, further comprising:

providing a fluid tight seal between the threads of the first and second tubular members.

57. The method of claim 55, further comprising:

providing a fluid tight seal between the tubular sleeve and at least one of the first and second tubular members.

58. The method of claim 1, wherein the first and second tubular members comprise wellbore casings.

59. The method of claim 1, wherein the first and second tubular members comprise pipes.

60. A method, comprising:

providing a tubular sleeve comprising an internal flange positioned between the ends of the tubular sleeve;

inserting an end of a first tubular member into an end of the tubular sleeve into abutment with the internal flange;

inserting an end of a second tubular member into another end of the tubular sleeve into abutment the internal flange;

threadably coupling the ends of the first and second tubular members;

radially expanding and plastically deforming the first tubular member and the second tubular member;

placing the tubular sleeve in circumferential tension;

placing the end of the first tubular member in circumferential compression; and

placing the end of the second tubular member in circumferential compression.

61. A method, comprising:

providing a tubular sleeve comprising an external flange positioned between the ends of the

tubular sleeve;

inserting an end of the tubular sleeve into an end of a first tubular member until the end of the first tubular member abuts with the external flange;

inserting another end of the tubular sleeve into an end of the second tubular member until the end of the second tubular member abuts the external flange;

threadably coupling the ends of the first and second tubular members;

radially expanding and plastically deforming the first tubular member and the second tubular member;

placing the tubular sleeve in circumferential compression;

placing the end of the first tubular member in circumferential tension; and

placing the end of the second tubular member in circumferential tension.

62. A method, comprising:

providing a tubular sleeve comprising an internal flange positioned between the ends of the tubular sleeve;

inserting an end of a first tubular member into an end of the tubular sleeve into abutment with the internal flange;

inserting an end of a second tubular member into another end of the tubular sleeve into abutment the internal flange;

threadably coupling the ends of the first and second tubular members;

radially expanding and plastically deforming only the portions of the first tubular member and the second tubular member proximate the threads of the first and second tubular members;

placing the tubular sleeve in circumferential tension;

placing the end of the first tubular member in circumferential compression; and

placing the end of the second tubular member in circumferential compression.

63. A method, comprising:

providing a tubular sleeve comprising an external flange positioned between the ends of the tubular sleeve;

inserting an end of the tubular sleeve into an end of a first tubular member until the end of the first tubular member abuts with the external flange;

inserting another end of the tubular sleeve into an end of the second tubular member until the end of the second tubular member abuts the external flange;

threadably coupling the ends of the first and second tubular members;

radially expanding and plastically deforming only the portions of the first tubular member and the second tubular member proximate the threads of the first and second tubular members;

placing the tubular sleeve in circumferential compression;

placing the end of the first tubular member in circumferential tension; and

placing the end of the second tubular member in circumferential tension.

64. An apparatus, comprising:

a tubular sleeve;

a first tubular member coupled to an end of the tubular sleeve; and

a second tubular member coupled to another end of the tubular sleeve and the first tubular member.

65. The apparatus of claim 64,

wherein the tubular sleeve is in circumferential tension;

wherein the end portion of the first tubular member is in circumferential compression; and

wherein the end portion of the second tubular member is in circumferential compression.

66. The apparatus of claim 64,

wherein the tubular sleeve is in circumferential compression;

wherein the end portion of the first tubular member is in circumferential tension; and

wherein the end portion of the second tubular member is in circumferential tension.

67. The apparatus of claim 64, wherein the tubular sleeve comprises an internal flange.

68. The apparatus of claim 67, wherein the end portion of the first tubular member is received within an end of the tubular sleeve; and wherein the end portion of the second tubular member is received within another end of the tubular sleeve.

69. The apparatus of claim 68, wherein the end portions of the first and second tubular members abut the internal flange of the tubular sleeve.

70. The apparatus of claim 67, wherein the end portion of the first tubular member is received within an end of the tubular sleeve.

71. The apparatus of claim 70, wherein the end portions of the first and second tubular members abut the internal flange of the tubular sleeve.

72. The apparatus of claim 67, wherein the end portion of the second tubular member is received within an end of the tubular sleeve.

73. The apparatus of claim 72, wherein the end portions of the first and second tubular members abut the internal flange of the tubular sleeve.

74. The apparatus of claim 67, wherein the internal flange of the tubular sleeve is positioned between the ends of the tubular sleeve.

75. The apparatus of claim 67, wherein the internal flange of the tubular sleeve is positioned at an end of the tubular sleeve.

76. The apparatus of claim 64, wherein the tubular sleeve comprises an external flange.

77. The apparatus of claim 76, wherein an end portion of the tubular sleeve is received within the

first tubular member; and wherein another end portion of the tubular sleeve is received within the end portion of the second tubular member.

78. The apparatus of claim 77, wherein the end portions of the first and second tubular members abut the external flange of the tubular sleeve.

79. The apparatus of claim 76, wherein an end portion of the tubular sleeve is received within the end portion of the first tubular member.

80. The apparatus of claim 79, wherein the end portions of the first and second tubular members abut the external flange of the tubular sleeve.

81. The apparatus of claim 76, wherein an end portion of the tubular sleeve is received within the end portion of the second tubular member.

82. The apparatus of claim 81, wherein the end portions of the first and second tubular members abut the external flange of the tubular sleeve.

83. The apparatus of claim 76, wherein the external flange of the tubular sleeve is positioned between the ends of the tubular sleeve.

84. The apparatus of claim 76, wherein the external flange of the tubular sleeve is positioned at an end of the tubular sleeve.

85. The apparatus of claim 64, wherein the tubular sleeve further comprises one or more sealing members for sealing the interface between the tubular sleeve and at least one of the tubular members.

86. The apparatus of claim 64, further comprising:

a retaining ring positioned between the end of the first tubular member and the end of the tubular sleeve.

87. The apparatus of claim 86, further comprising:

another retaining ring positioned between the end of the second tubular member and the other end of the tubular sleeve.

88. The apparatus of claim 64, further comprising:

a retaining ring positioned between the end of the first tubular member and the other end of the tubular sleeve.

89. The apparatus of claim 86, wherein the retaining ring is resilient.

90. The apparatus of claim 87, wherein the retaining ring and the other retaining ring are resilient.

91. The apparatus of claim 88, wherein the retaining ring is resilient.

92. The apparatus of claim 64, wherein the end of the tubular sleeve is deformed onto the end of the first tubular member.

93. The apparatus of claim 92, wherein the other end of the tubular sleeve is deformed onto the end of the second tubular member.

94. The apparatus of claim 64, wherein the other end of the tubular sleeve is deformed onto the end of the second tubular member.

95. The apparatus of claim 64, further comprising:
a retaining ring coupled to the end of the first tubular member for retaining the tubular sleeve onto the end of the first tubular member.

96. The apparatus of claim 95, further comprising:
another retaining ring coupled to the end of the second tubular member for retaining the other end of the tubular sleeve onto the end of the second tubular member.

97. The apparatus of claim 64, further comprising:
a retaining ring coupled to the end of the second tubular member for retaining the other end of the tubular sleeve onto the end of the second tubular member.

98. The apparatus of claim 95, wherein the retaining ring is resilient.

99. The apparatus of claim 96, wherein the retaining ring and the other retaining ring are resilient.

100. The apparatus of claim 97, wherein the retaining ring is resilient.

101. The apparatus of claim 64, further comprising:
a locking ring for coupling the end of the first tubular member to the end of the tubular sleeve.

102. The apparatus of claim 101, further comprising:
another locking ring for coupling the end of the second tubular member to the other end of the tubular sleeve.

103. The apparatus of claim 64, further comprising:
a locking ring for coupling the end of the second tubular member to the other end of the tubular sleeve.

104. The apparatus of claim 64, further comprising:
a structure for receiving the first and second tubular members and the tubular sleeve;
wherein the tubular sleeve contacts the interior surface of the structure.

105. The apparatus of claim 104, wherein the tubular sleeve further comprises:
a sealing member for fluidicly sealing the interface between the tubular sleeve and the structure.

106. The apparatus of claim 104, wherein the other structure comprises a wellbore.

107. The apparatus of claim 104, wherein the other structure comprises a wellbore casing.

108. The apparatus of claim 64, wherein the tubular sleeve further comprises a sealing element coupled to the exterior surface of the tubular sleeve.

109. The apparatus of claim 64, wherein the tubular sleeve is metallic.

110. The apparatus of claim 64, wherein the tubular sleeve is non-metallic.

111. The apparatus of claim 64, wherein the tubular sleeve is plastic.

112. The apparatus of claim 64, wherein the tubular sleeve is ceramic.

113. The apparatus of claim 64, wherein the tubular sleeve is frangible.

114. The apparatus of claim 64, wherein the tubular sleeve comprises one or more longitudinal

slots.

115. The apparatus of claim 64, wherein the tubular sleeve comprises one or more radial passages.

116. The apparatus of claim 64, wherein the first and second tubular members are amorphously bonded.

117. The apparatus of claim 64, wherein the first and second tubular members are welded.

118. The apparatus of claim 64, wherein only the portions of the first and second tubular members proximate the tubular sleeve are plastically deformed.

119. The apparatus of claim 118, wherein a fluid tight seal is provided between the tubular sleeve and at least one of the first and second tubular members.

120. The apparatus of claim 64, wherein the first tubular member comprises internal threads; and wherein the second tubular member comprises external threads that engage the internal threads of the first tubular member.

121. The apparatus of claim 120, wherein only the portions of the first and second members proximate the threads of the first and second tubular members are plastically deformed.

122. The apparatus of claim 121, wherein a fluid tight seal is provided between the threads of the first and second tubular members.

123. The apparatus of claim 121, wherein a fluid tight seal is provided between the tubular sleeve and at least one of the first and second tubular members.

124. An apparatus, comprising:

a tubular sleeve comprising an internal flange positioned between the ends of the tubular sleeve;

a first tubular member received within an end of the tubular sleeve in abutment with the internal flange that comprises internal threads; and

a second tubular member received within another end of the tubular sleeve in abutment with the internal flange that comprises external threads that engage the internal threads of the first tubular member;

wherein the tubular sleeve is in circumferential tension;

wherein the end of first tubular member is in circumferential compression; and

wherein the end of the second tubular member is in circumferential compression.

125. An apparatus, comprising:

a tubular sleeve comprising an external flange positioned between the ends of the tubular sleeve;

a first tubular member that receives an end of the tubular sleeve and abuts the external flange that comprises internal threads; and

a second tubular member that receives another end of the tubular sleeve that abuts the external flange that comprises external threads that engage the internal threads of the first

tubular member;

wherein the tubular sleeve is in circumferential compression;

wherein the first tubular member is in circumferential tension; and

wherein the second tubular member is in circumferential tension.

126. An apparatus, comprising:

a tubular sleeve comprising an internal flange positioned between the ends of the tubular sleeve;

a first tubular member received within an end of the tubular sleeve in abutment with the internal flange that comprises internal threads; and

a second tubular member received within another end of the tubular sleeve in abutment with the internal flange that comprises external threads that engage the internal threads of the first tubular member;

wherein the tubular sleeve is in circumferential tension;

wherein the end of first tubular member is in circumferential compression;

wherein the end of the second tubular member is in circumferential compression;

wherein a fluid tight seal is provided between the tubular sleeve and at least one of the first and second tubular members; and

wherein a fluid tight seal is provided between the threads of the first and second tubular members.

127. An apparatus, comprising:

a tubular sleeve comprising an external flange positioned between the ends of the tubular sleeve;

a first tubular member that receives an end of the tubular sleeve and abuts the external flange that comprises internal threads; and

a second tubular member that receives another end of the tubular sleeve that abuts the external flange that comprises external threads that engage the internal threads of the first tubular member;

wherein the tubular sleeve is in circumferential compression;

wherein the first tubular member is in circumferential tension;

wherein the second tubular member is in circumferential tension;

wherein a fluid tight seal is provided between the tubular sleeve and at least one of the first and second tubular members; and

wherein a fluid tight seal is provided between the threads of the first and second tubular members.

128. A method of extracting geothermal energy from a subterranean source of geothermal energy, comprising:

drilling a borehole that traverses the subterranean source of geothermal energy;

positioning a first casing string within the borehole;

radially expanding and plastically deforming the first casing string within the borehole;

positioning a second casing string within the borehole that traverses the subterranean source of geothermal energy;

overlapping a portion of the second casing string with a portion of the first casing string;

radially expanding and plastically deforming the second casing string within the borehole; and

extracting geothermal energy from the subterranean source of geothermal energy using the first and second casing strings.

129. The method of claim 128, wherein the interior diameter of a passage defined by the first and second casing strings is constant.

130. The method of claim 128, wherein at least one of the first and second casing strings comprise:

a tubular sleeve;

a first tubular member coupled to an end of the tubular sleeve comprising internal threads at an end portion; and

a second tubular member coupled to another end of the tubular sleeve comprising external threads at an end portion that engage the internal threads of the end portion of the first tubular member.

131. A method of extracting geothermal energy from a subterranean source of geothermal energy, comprising:

drilling a borehole that traverses the subterranean source of geothermal energy;

positioning a first casing string within the borehole;

radially expanding and plastically deforming the first casing string within the borehole;

positioning a second casing string within the borehole that traverses the subterranean source of geothermal energy;

overlapping a portion of the second casing string with a portion of the first casing string;

radially expanding and plastically deforming the second casing string within the borehole; and

extracting geothermal energy from the subterranean source of geothermal energy using the first and second casing strings;

wherein the interior diameter of a passage defined by the first and second casing strings is constant; and

wherein at least one of the first and second casing strings comprise:

a tubular sleeve comprising an internal flange positioned between the ends of the tubular sleeve;

a first tubular member received within an end of the tubular sleeve in abutment with the internal flange that comprises internal threads; and

a second tubular member received within another end of the tubular sleeve in abutment with the internal flange that comprises external threads that engage the internal threads of the first tubular member.

132. A method of extracting geothermal energy from a subterranean source of geothermal energy, comprising:

drilling a borehole that traverses the subterranean source of geothermal energy;

positioning a first casing string within the borehole;

radially expanding and plastically deforming the first casing string within the borehole;

positioning a second casing string within the borehole that traverses the subterranean source of geothermal energy;

overlapping a portion of the second casing string with a portion of the first casing string;

radially expanding and plastically deforming the second casing string within the borehole; and

extracting geothermal energy from the subterranean source of geothermal energy using the first and second casing strings;

wherein the interior diameter of a passage defined by the first and second casing strings is constant; and

wherein at least one of the first and second casing strings comprise:

a tubular sleeve comprising an external flange positioned between the ends of the tubular sleeve;

a first tubular member that receives an end of the tubular sleeve that abuts external flange that comprises internal threads; and

a second tubular member that receives another end of the tubular sleeve that abuts the external flange that comprises external threads that engage the internal threads of the first tubular member.

133. A method of extracting geothermal energy from a subterranean source of geothermal energy, comprising:

drilling a borehole that traverses the subterranean source of geothermal energy;

positioning a first casing string within the borehole;

radially expanding and plastically deforming the first casing string within the borehole;

positioning a second casing string within the borehole that traverses the subterranean source of geothermal energy;

overlapping a portion of the second casing string with a portion of the first casing string;

radially expanding and plastically deforming the second casing string within the borehole; and

extracting geothermal energy from the subterranean source of geothermal energy using the first and second casing strings;

wherein the interior diameter of a passage defined by the first and second casing strings is

constant; and

wherein at least one of the first and second casing strings comprise:

a tubular sleeve comprising an internal flange positioned between the ends of the tubular sleeve;

a first tubular member received within an end of the tubular sleeve in abutment with the internal flange that comprises internal threads; and

a second tubular member received within another end of the tubular sleeve in abutment with the internal flange that comprises external threads that engage the internal threads of the first tubular member;

wherein the tubular sleeve is in circumferential tension;

wherein the first tubular member is in circumferential compression;

wherein the second tubular member is in circumferential compression;

wherein a fluid tight seal is provided between the tubular sleeve and at least one of the first and second tubular members; and

wherein a fluid tight seal is provided between the threads of the first and second tubular members.

134. A method of extracting geothermal energy from a subterranean source of geothermal energy, comprising:

drilling a borehole that traverses the subterranean source of geothermal energy;

positioning a first casing string within the borehole;

radially expanding and plastically deforming the first casing string within the borehole;

positioning a second casing string within the borehole that traverses the subterranean source of geothermal energy;

overlapping a portion of the second casing string with a portion of the first casing string;

radially expanding and plastically deforming the second casing string within the borehole; and

extracting geothermal energy from the subterranean source of geothermal energy using the first and second casing strings;

wherein the interior diameter of a passage defined by the first and second casing strings is constant; and

wherein at least one of the first and second casing strings comprise:

a tubular sleeve comprising an external flange positioned between the ends of the tubular sleeve;

a first tubular member that receives an end of the tubular sleeve that abuts external flange that comprises internal threads; and

a second tubular member that receives another end of the tubular sleeve that abuts the external flange that comprises external threads that engage the internal threads

of the first tubular member;

wherein the tubular sleeve is in circumferential compression;

wherein the first tubular member is in circumferential tension;

wherein the second tubular member is in circumferential tension;

wherein a fluid tight seal is provided between the tubular sleeve and at least one of the first and second tubular members; and

wherein a fluid tight seal is provided between the threads of the first and second tubular members.

135. An apparatus for extracting geothermal energy from a subterranean source of geothermal energy, comprising:

a borehole that traverses the subterranean source of geothermal energy;

a first casing string positioned within the borehole; and

a second casing positioned within the borehole that overlaps with the first casing string that traverses the subterranean source of geothermal energy;

wherein the first casing string and the second casing string are radially expanded and plastically deformed within the borehole.

136. The apparatus of claim 135, wherein the interior diameter of a passage defined by the first and second casing strings is constant.

137. The apparatus of claim 135, wherein at least one of the first and second casing strings comprise:

a tubular sleeve;

a first tubular member coupled to an end of the tubular sleeve comprising internal threads at an end portion; and

a second tubular member coupled to another end of the tubular sleeve comprising external threads at an end portion that engage the internal threads of the end portion of the first tubular member.

138. An apparatus for extracting geothermal energy from a subterranean source of geothermal energy, comprising:

a borehole that traverses the subterranean source of geothermal energy;

a first casing string positioned within the borehole;

a second casing string within the borehole that traverses the subterranean source of geothermal energy that overlaps with the first casing string;

wherein the first and second casing strings are radially expanded and plastically deformed within the borehole;

wherein the inside diameter of a passage defined by the first and second casing strings is constant; and

wherein at least one of the first and second casing strings comprise:

a tubular sleeve comprising an internal flange positioned between the ends of the tubular sleeve;

a first tubular member received within an end of the tubular sleeve in abutment with the internal flange that comprises internal threads; and

a second tubular member received within another end of the tubular sleeve in abutment with the internal flange that comprises external threads that engage the internal threads of the first tubular member.

139. An apparatus for extracting geothermal energy from a subterranean source of geothermal energy, comprising:

a borehole that traverses the subterranean source of geothermal energy;

a first casing string positioned within the borehole; and

a second casing string positioned within the borehole that traverses the subterranean source of geothermal energy that overlaps with the first casing string;

wherein the interior diameter of a passage defined by the first and second casing strings is constant; and

wherein at least one of the first and second casing strings comprise:

a tubular sleeve comprising an external flange positioned between the ends of the tubular sleeve;

a first tubular member that receives an end of the tubular sleeve that abuts external flange that comprises internal threads; and

a second tubular member that receives another end of the tubular sleeve that abuts the external flange that comprises external threads that engage the internal threads of the first tubular member.

140. An apparatus for extracting geothermal energy from a subterranean source of geothermal energy, comprising:

a borehole that traverses the subterranean source of geothermal energy;

a first casing string positioned within the borehole;

a second casing string within the borehole that traverses the subterranean source of geothermal energy that overlaps with the first casing string;

wherein the first and second casing strings are radially expanded and plastically deformed within the borehole;

wherein the inside diameter of a passage defined by the first and second casing strings is constant; and

wherein at least one of the first and second casing strings comprise:

a tubular sleeve comprising an internal flange positioned between the ends of the

tubular sleeve;

a first tubular member received within an end of the tubular sleeve in abutment with the internal flange that comprises internal threads;

a second tubular member received within another end of the tubular sleeve in abutment with the internal flange that comprises external threads that engage the internal threads of the first tubular member;

wherein the tubular sleeve is in circumferential tension;

wherein the first tubular member is in circumferential compression;

wherein the second tubular member is in circumferential compression;

wherein a fluid tight seal is provided between the tubular sleeve and at least one of the first and second tubular members; and

wherein a fluid tight seal is provided between the threads of the first and second tubular members.

141. An apparatus for extracting geothermal energy from a subterranean source of geothermal energy, comprising:

a borehole that traverses the subterranean source of geothermal energy;

a first casing string positioned within the borehole; and

a second casing string positioned within the borehole that traverses the subterranean source of geothermal energy that overlaps with the first casing string;

wherein the interior diameter of a passage defined by the first and second casing strings is constant; and

wherein at least one of the first and second casing strings comprise:

a tubular sleeve comprising an external flange positioned between the ends of the tubular sleeve;

a first tubular member that receives an end of the tubular sleeve that abuts external flange that comprises internal threads;

a second tubular member that receives another end of the tubular sleeve that abuts the external flange that comprises external threads that engage the internal threads of the first tubular member;

wherein the tubular sleeve is in circumferential compression;

wherein the first tubular member is in circumferential tension;

wherein the second tubular member is in circumferential tension;

wherein a fluid tight seal is provided between the tubular sleeve and at least one of the first and second tubular members; and

wherein a fluid tight seal is provided between the threads of the first and second tubular members.

142. A method, comprising:

coupling the ends of first and second tubular members;

injecting a pressurized fluid through the first and second tubular members;

determining if any of the pressurized fluid leaks through the coupled ends of the first and second tubular members; and

if a predetermined amount of the pressurized fluid leaks through the coupled ends of the first and second tubular members, then coupling a tubular sleeve to the ends of the first and second tubular members and radially expanding and plastically deforming only the portions of the first and second tubular members proximate the tubular sleeve.

143. The method of claim 142, wherein radially expanding and plastically deforming only the portions of the first and second tubular members proximate the tubular sleeve comprises:

displacing an expansion cone within and relative to the first and second tubular members.

144. The method of claim 142, wherein radially expanding and plastically deforming only the portions of the first and second tubular members proximate the tubular sleeve comprises:

applying radial pressure to the interior surfaces of the first and second tubular member proximate the tubular sleeve using a rotating member.

145. The method of claim 1, further comprising:

transmitting energy through the first and second tubular members.

146. The method of claim 145, wherein the energy comprises electrical energy.

147. The method of claim 146, wherein the electrical energy comprises a communication signal.

148. The method of claim 145, wherein the energy comprises thermal energy.

149. The method of claim 145, wherein the energy comprises acoustic energy.

150. The method of claim 145, wherein the energy is transmitted through the first and second tubular members prior to radially expanding and plastically deforming the first and second tubular members.

151. The method of claim 145, wherein the energy is transmitted through the first and second tubular members after radially expanding and plastically deforming the first and second tubular members.

152. The method of claim 32, further comprising:

transmitting energy through the first and second tubular members.

153. The method of claim 152, wherein the energy comprises electrical energy.

154. The method of claim 153, wherein the electrical energy comprises a communication signal.

155. The method of claim 152, wherein the energy comprises thermal energy.

156. The method of claim 152, wherein the energy comprises acoustic energy.

157. The method of claim 152, wherein the energy is transmitted through the first and second tubular members prior to radially expanding and plastically deforming the first and second tubular

members.

158. The method of claim 152, wherein the energy is transmitted through the first and second tubular members after radially expanding and plastically deforming the first and second tubular members.

159. A system comprising:

a source of energy;

a borehole formed in the earth;

a first tubular member positioned within the borehole operably coupled to the source of energy;

a second tubular member positioned within the borehole coupled to the first tubular member; and

a tubular sleeve positioned within the borehole coupled to the first and second tubular members;

wherein the first tubular member, second tubular member, and the tubular sleeve are plastically deformed into engagement with one another.

160. The system of claim 159, wherein the source of energy comprises a source of electrical energy.

161. The system of claim 159, wherein the source of energy comprises a source of thermal energy.

162. The system of claim 159, wherein the source of energy comprises a source of acoustic energy.

163. A method of operating a well for extracting hydrocarbons from a subterranean formation, comprising:

drilling a borehole into the earth that traverses the subterranean formation;

positioning a wellbore casing in the borehole;

transmitting energy through the wellbore casing; and

extracting hydrocarbons from the subterranean formation;

wherein the wellbore casing comprises:

a first tubular member;

a second tubular member coupled to the first tubular member; and

a tubular sleeve coupled to the first and second tubular member; and

wherein the first tubular member, the second tubular member, and the tubular sleeve are plastically deformed into engagement with one another.

164. The method of claim 163, wherein the energy comprises electrical energy.

165. The system of claim 163, wherein the energy comprises thermal energy.

166. The system of claim 163, wherein the energy comprises acoustic energy.